

DEC 12 2006

REMARKS

These Remarks are in response to the Office action mailed September 12th, 2006. Claims 1, 4, 7-10 and 12 have been amended. Claim 2 has been canceled without prejudice. Claims 1 and 3-12 remain pending in the application. Applicant appreciates Examiner's careful review of the present application.

Any amendments to the claims not specifically referred to herein as being included for the purpose of distinguishing the claims from cited references are included for the purpose of clarification, consistence and/or grammatical correction only.

Claim Rejections Under 35 U.S.C. 101

Claims 1-7 and 12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

In response to this rejection, applicant has amended claims 1 and 12 by adding recitations relating to hardware or a combination of hardware and software thereinto, for the purpose of overcoming the rejection under 35 U.S.C. 101. Amended claims 1 and 12 now recite the use of certain technology, such as a software module (i.e., a BOM sorting module) installed in a computer (i.e., a designing computer). The amendments are derived from the specification and drawings as originally filed, therefore no new matter is added. The claimed characteristics of the BOM sorting module necessarily require a computer (i.e., the designing computer) and a database (i.e., the database server).

Furthermore, the amended claims are recited as being computer-based (claim 1) and computer-enabled (claim 12). The claimed functional characteristics (claim 1) and the claimed actions (claim 12) can only be

realized by, inter alia, the carrying out of one or more functions of a software module (i.e., the BOM sorting module) provided in a piece of hardware (i.e., the designing computer). That is, amended claims 1 and 12 now clearly recite that the software module (the BOM sorting module) is installed in the computer (i.e., the designing computer) and resides therein in order that the claimed functionalities are realized and produce a tangible result (i.e. the executable BOM file stored in the database server).

Moreover, the database server in amended claims 1 and 12 is not a software product, but a piece of hardware (see "Database Server 130" in FIG. 1 of the present invention). The database server acts as a computer storage medium to store an original BOM file, an executable BOM file integrated by the designing computer, and other data of an organization (see page 4, paras. [0015]-[0016] of the specification).

Therefore, it is submitted that in amended claims 1 and 12, the invention has clearly demarcated practical application in the technological arts, and does not merely describe abstract functionalities. Each of the claimed system (claim 1) and method (claim 12) performs or produces a tangible result. The software module (i.e., the BOM sorting module) in the piece of hardware (i.e., the designing computer) and the database server are necessary prerequisites in obtaining the practical result or outcome of sorting the BOMs and obtaining and storing the executable BOM file. The result obtained is not a mere functional construct, but literally the sorting of the BOMs and the stored executable BOM file. To sort BOMs is an important part of carrying out manufacturing management and inventory control by a company or a private enterprise (see pages 1-2, paras. [0002]-[0004] of the specification). Therefore, the results produced by carrying out the claimed system and method are very tangible, useful, and concrete.

For at least the above reasons, it is submitted that amended claims 1 and 12 are directed to statutory subject matter. Claims 3-7 depend directly

from amended independent claim 1. Accordingly, applicant requests reconsideration and removal of the rejection of claims 3-7 and 12 under 35 U.S.C. 101.

Claim 2 has been canceled without prejudice, therefore the rejection relating thereto is now moot.

Claim Rejections Under 35 U.S.C. 103

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over PcMRP for Windows, Version 7.70A, 1/6/03, Software Arts Consulting Inc. (hereinafter referred to as "PcMRP").

Claims 1-7

In response, applicant has amended claim 1 by adding more limitations thereinto. Support for the amendments can be found in the originally filed specification and drawings of the present application. The amendments have been made at least for the purpose of distinguishing claim 1 from the reference cited by Examiner and overcoming the rejection under 35 U.S.C. 103(a).

Claim 1, as amended, recites in part:

'a BOM sorting module for accessing the original BOM file and the part specification file, for sorting parts in the original BOM file into surface mount device (SMD) parts, pin through hole (PTH) parts, and empty parts according to the assembly methods in the part specification file, for generating a plurality of sub-files, and for integrating all the sub-files into an executable BOM file that is to be stored in the database server'.

Applicant submits that PcMRP does not teach or otherwise suggest the invention having the above-described features as currently set forth in amended claim 1.

PcMRP discloses a function for sorting the BOMs by Part Number, by Root Number, or by Item Number (see page 166, lines 1-4). PcMRP further discloses an option for auditing the BOM file (see pages 166, lines 26-31).

However, PcMRP fails to disclose means for sorting parts in the BOM file according to assembly methods, wherein the parts in the BOM can be sorted into surface mount devices (SMD) parts, pin through hole (PTH) parts, and empty parts. That is, PcMRP fails to teach or suggest the feature of *'a BOM sorting module for accessing the original BOM file and the part specification file, for sorting parts in the original BOM file into surface mount device (SMD) parts, pin through hole (PTH) parts, and empty parts according to the assembly methods in the part specification file'*, as set forth in amended claim 1 (see pages 5-6, para. [0018] of the present specification).

Furthermore, PcMRP discloses a method for creating a desired address book by choosing desired data, and for merging data with a document (see pages 59, Step One, Step Two, and Step Three). However, PcMRP fails to disclose how to generate a plurality of sub-files, and integrate the plurality of sub-files into an executable BOM file for storing output of a BOM sorting system, wherein the output is executable BOMs that satisfy manufacturing requirements (see pages 4-5, para. [0017] of the present specification). That is, PcMRP fails to teach or suggest the feature of *'a BOM sorting module ...for generating a plurality of sub-files, and for integrating all the sub-files into an executable BOM file that is to be stored in the database server'*, as set forth in amended claim 1 (see pages 6-7, para. [0021], and page 7, para. [0022] of the present specification).

For at least the above reasons, applicant submits that amended claim 1 is unobvious and patentable over PcMRP under 35 U.S.C. 103(a). Reconsideration and removal of the rejection and allowance of amended claim 1 are requested.

Dependent claims 3-7 include all the subject matter of amended independent claim 1, and incorporate additional subject matter therein respectively. Therefore, claims 3-7 should also be allowable.

Claim 2 has been canceled without prejudice, therefore the rejection relating thereto is now moot.

Claims 8-11

In response, applicant has amended claim 8 by adding limitations corresponding to some of the limitations of the functions of the BOM sorting module as recited in amended claim 1. Support for the amendments can be found in the originally filed specification and drawings of the present application. The amendments have been made at least for the purpose of distinguishing claim 8 from the reference cited by Examiner and overcoming the rejection under 35 U.S.C. 103(a).

Claim 8, as amended, recites in part:

'sorting parts in the original BOM file into surface mount device (SMD) parts, pin through hole (PTH) parts, and empty parts according to assembly methods in the part specification file'.

For at least reasons similar to those asserted above in relation to amended claim 1, applicant asserts that PcMRP does not teach or otherwise suggest the invention having the above-described limitations as currently set forth in amended claim 8.

Accordingly, applicant submits that amended claim 8 is unobvious and patentable over PcMRP under 35 U.S.C. 103(a). Reconsideration and removal of the rejection and allowance of amended claim 8 are requested.

Dependent claims 9-11 include all the subject matter of amended independent claim 8, and incorporate additional subject matter thereinto respectively. Therefore, claims 9-11 should also be allowable.

Claim 12

In response, applicant has amended claim 12 by adding limitations corresponding to some of the limitations of the functions of the BOM sorting module as recited in amended claim 1. Support for all the amendments can be found in the originally filed specification, claims, and drawings of the present application. The amendments by way of adding limitations have been made at least for the purpose of distinguishing claim 12 from the reference cited by Examiner and overcoming the rejection under 35 U.S.C. 103(a).

Claim 12, as amended, recites in part:

'using a BOM sorting module in a designing computer to connect to the database server via a database connection module of the designing computer and a database management module of the database server, so as to integrate a plurality of sub-files into said executable BOM file, wherein said sub-files are generated by sorting parts in the original BOM file into surface mount device (SMD) parts, pin through hole (PTH) parts, and empty parts according to assembly methods in the part specification file'.

Applicant refers to and relies on the above assertions made in relation to similar features of amended claims 1 and 8.

Further, referring particularly to lines 10-19 on page 8 of the Office action, applicant stresses that the test of obviousness is applied in relation

to the knowledge of one of ordinary skill in the art at the time of the claimed invention. The time of the claimed invention is at present deemed to be the date of filing of the present application at the Office; namely 3/15/'04. The PcMRP reference is dated 1/6/'03. There is no indication of the actual time when later releases of PcMRP were issued. Assuming that the substituted teaching referred to in the Office action was indeed desperately needed, and if the later releases of PcMRP were issued after the time of the claimed invention, then this indicates the method of claim 12 was nonobvious *at the time of the claimed invention* because it solved a previously desperate yet unsolved need. The solution of an unsolved need is a well-recognized criterion in determining nonobviousness.

For at least the above reasons, applicant submits that PcMRP does not teach or otherwise suggest the invention having the above-highlighted feature(s) as currently set forth in amended claim 12.

Accordingly, applicant submits that amended claim 12 is unobvious and patentable over PcMRP under 35 U.S.C. 103(a). Reconsideration and removal of the rejection and allowance of amended claim 12 are requested.

In view of the above claim amendments and remarks, the subject application is believed to be in a condition for allowance, and an action to such effect is earnestly solicited.

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